Reviewer's report

**Title:** Serum C-reactive protein and thioredoxin levels in subjects with mildly reduced glomerular filtration rate

**Version:** 2  **Date:** 21 January 2010

**Reviewer:** Giovanni Tripepi

**Reviewer's report:**

My major concern about this paper is the way by which the authors tested their hypotheses by multivariate modelling. In their reply the authors write that the study was not designed to investigate an etiological hypothesis due to the cross-sectional nature of the study. In their reply the authors state that their study just looks at an association (from this standpoint the paper is of limited value). On the other hand, to construct multivariate models the authors allude to "confounding", a matter peculiar to etiological studies. Furthermore, although a cross-sectional study precludes the possibility to draw definitive conclusions (causal/non causal) about a given relationship, it is well known that also cross-sectional studies may be useful to generate coherent etiological hypotheses (in other words, well done cross sectional studies may serve as "hypothesis generating studies"). In this perspective, in my previous revision I have asked to authors for including simultaneously (that is, into two separate regression models: one model based on CRP and one model based on TRX) all potential confounders. In Table 3 and Table 4 the authors investigated the independence of GFR-CRP and GFR-TRX links only in models including age and sex and, separately, smoking OR Glucose OR BMI etc. I believe that, given the large sample size each link (GFR-CRP and GFR-TRX) should be tested in models including age AND sex AND smoking AND glucose AND BMI etc. In my opinion, it is fundamental that the authors clarify these points.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.